Participants at the My Amazing Future workshop learned first-hand how science, math and engineering principles apply in the real world.

Idaho teens explore science career options at 'My Amazing Future' event

By Lori McNamara, *for INL Communications & Governmental Affairs*

Many people assume the United States is and always will be the world leader in science and technology, but startling global statistics show otherwise.

For example, the U.S. ranks 27th among roughly three dozen developed countries for the proportion of college students receiving undergraduate degrees in science or engineering, according to the National Academies of Science, Engineering and Medicine.

One of the Academies' solutions is to increase the number of U.S. students pursuing and earning bachelor's degrees in science, technology, engineering and mathematics (STEM).

Workshop participants conduct a density gradient experiment.

That's exactly what workshop coordinator Maureen Finnerty hopes to do with the My Amazing Future workshop recently held at the Center for Advanced Energy Studies (CAES) and the Idaho National Laboratory Research Center.

The workshop showcases career and education opportunities in science and technology. This year, 85 eighth-grade students from Idaho Falls School District 91, Bonneville Joint School District 93 and Twin Falls participated in the daylong event that offered speakers, demonstrations and hands-on experiments designed to allow the students to imagine their own futures in a technical field.

Workshop participants virtually delve into the core of a nuclear reactor.

"INL has a commitment to the education of the next generation of scientists and engineers," said Finnerty. "We want to inspire the young women attending this event to pursue a career in the STEM areas. What better place to do that than at INL, where world-renowned scientists and engineers are conducting important research? This workshop allows participants to see first-hand how science, math and engineering principles apply in the real world."

CAES Director Harold Blackman couldn't agree more.

"It is critical to our society and our environment that you pursue a career as a scientist or engineer," Blackman said in his opening remarks to the group. "These careers are not only satisfying on a professional level because you're engaged in a field that is constantly learning and solving problems, but it is also rewarding on a personal level because it is the scientists and engineers who come up with the ideas to meet the basic needs of society – like something as simple as access to clean water."

Seeing demonstrations and interacting with professionals who are active in science, engineering and other technical disciplines can make a lasting impression on students considering potential careers.

Just ask Taylorview Junior High eighth-grader Niquelle Lewis. She has always liked her science and math classes at school. But, it wasn't until she attended the My Amazing Future event that she was able to see exactly what scientists do.

She was particularly impressed with what she learned from the DNA and Microorganisms workshop conducted by INL microbiologists Debra Bruhn and James Henriksen and environmental engineer Neil Yancey. "Before I came to this workshop, I didn't even know what a microbiologist was or what they did – but now I do. It was exciting because we got to extract DNA from bacteria, looked at it through the microscopes and learned how this technology is used for positively identifying criminal suspects."

Lewis was one of 10 Taylorview students chosen to attend the event, where space is limited.

Attend next year!

My Amazing Future will be held again next year. If you would like more information or would like to create a workshop for the event, contact Maureen Finnerty (526-8120, maureen.finnerty@inl.gov).

Taylorview's eighth-grade earth science teacher, Joyce Knowles, would like to see this program expanded.

"We're limited to the number of students we can bring and it can sometimes be tough to choose who to send. We need programs like these if we want our students to pursue careers in the STEM areas," Knowles said. "My job is to help kids love science and they don't develop that love – or curiosity – until they see it used in a real-life experience and see how it can be applied in their own lives. That's when that love for science is developed."

Peering through electromagnetic radiation detectors, workshop participants check a radiation reading.

Knowles also understands just how important it is to encourage young women to not only take the science and math classes in school, but to continue their educations and pursue careers in the STEM areas.

"The girls are just as smart as the boys," she said. "They sometimes just don't know it yet. They lack the confidence – not the brains – to excel in science and math."

Finnerty agrees. She, too, wants to see the program grow and expand. Initial plans for the 2012 workshop include expanding the number of participants to 200 by inviting young women from Pocatello, Blackfoot, Shelley, Rigby and Rexburg schools. Eventually, Finnerty would like to open it up to students from across the state.

The My Amazing Future event is another example of INL's commitment to education of the next generation of energy workers. In a variety of ways, the lab creates opportunities to grow the technical education workforce of the future through initiatives that engage students in STEM activities. The workshop is sponsored by INL with support from Partners for Prosperity, Walsh Engineering, Energy Systems Technology and Education Center, College of Southern Idaho, Idaho Falls School District 91 and Bonneville Joint School District 93.

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